

Amendment and Response

Applicant: Michael D. Hamerski et al.

Serial No.: 10/749,580

Filed: December 31, 2003

Docket No.: M120.224.101 (59116US002)

Title: METHOD OF APPLYING A FORCE TO A WORK PIECE

REMARKS

These remarks are responsive to the Non-Final Office Action mailed May 17, 2005. In that Office Action, the Examiner rejected claims 1-6, 11-15, and 19 under 35 U.S.C. §103(a) as being unpatentable over Ventura, U.S. Patent No. 6,722,179 ("Ventura") in view of Hutter, III, U.S. Patent No. 6,773,780 ("Hutter"). Claims 7 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ventura in view of Hutter, and further in view of Meichtry, U.S. Patent No. 6,874,347 ("Meichtry"). Claims 8, 9, 17, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ventura in view of Hutter, and further in view of Ritter, U.S. Patent No. 6,792,790 ("Ritter"). Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ventura in view of Hutter, and further in view of Holsapple, U.S. Patent No. 3,712,106 ("Holsapple").

With this response, newly presented claim 20 has been added. Claims 1-20 are pending in the application and are presented for consideration and allowance.

35 U.S.C. §103 Rejections

The Examiner rejected independent claims 1, 11, and 19 under 35 U.S.C. §103(a) as being unpatentable over Ventura in view of Hutter. The Examiner also cited Meichtry, Ritter, and Holsapple in rejecting several of the dependant claims under 35 U.S.C. §103(a). In general terms, the independent claims relate to applying either a compressive force or a tensile force to a workpiece, and attaching either a body member or a force-applying member to a surface using a double-sided stretch releasable adhesive. For at least the following reasons, the cited references fail to teach or suggest the limitations of the independent claims, and therefore, the claims depending therefrom.

In rejecting the independent claims, the Examiner uses Ventura as the primary reference and recognizes that Ventura does not teach or suggest using a double-sided stretch releasable adhesive as required by the independent claims. Instead, the Examiner relies on Hutter to teach such limitations. As a general rule, if the prior art, considered in its entirety, teaches away from the combination of references, the requisite motivation or suggestion to combine such references

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is not present. MPEP §2141.02, .03. For the reasons below, it is believed that the cited references teach away from their combination.

Ventura teaches that “[w]hat is needed is a dent puller for paintless body repair which will not cause new dents in the panel and which will not leave adhesive adhered to the panel when the plate pulls away from the panel.” Ventura at col. 1, ll. 57-60. In order to accomplish this overriding goal, Ventura describes a melt bond adhesive 47 that adheres a plate 19 to a body panel 3. In order to obtain sufficient bond strength, the plate 19 includes opening 39 which increases the surface area of the plate 19. In particular, the holes increase adhesion as the adhesive 47 flows through the openings 39. Ventura at col. 5, ll. 19-28. While Ventura discloses “it is foreseen that adhesives other than a hot melt-type adhesive might be suitable for use with the dent puller,” clearly any substitute adhesive would have to meet the primary functions of Ventura in serving as a dent puller. In particular, the adhesive would have to include: (1) sufficient strength and (2) be removable from the dent surface.

In terms of what constitutes sufficient adhesive strength, Ventura fails to provide any quantitative requirements. Holsapple, however, indicates that forces associated with dent pulling are upward of 200 pounds. Holsapple at col. 3, ll. 32-35. Holsapple accomplishes such “holding power” through the use of vacuum cups. Id. More qualitatively, Ritter indicates that sufficient bond strength to draw out dents can be realized by “welding to the dent.” Ritter at col. 1, ll. 13-17. Similarly to Ventura, Meichtry also endorses the use of hot-melt adhesives as they can be selected to have “a strength which is sufficient only for plastic deformation [of the dent] but is smaller than the breaking strength of the material layer in order to safely rule out any damage to the material layer.” Meichtry at col. 2, ll. 41-46. Notably, Meichtry also teaches that hot melt adhesives are advantageous in that they conform to a dent to obtain sufficient contact with the surface of the dent. Meichtry at col. 5, ll. 26-33 and Fig. 4.

In terms of the second criteria, removability, it is required in all of the prior art references that the dent pullers, and associated adhesives, must be removed from the surface after a dent has been repaired. E.g., Ventura at col. 2, ll. 25-34. Notably, none of the above-cited references cite the use of stretch releasable adhesives in order to accomplish releasability as required by the limitations of the independent claims.

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In order to supply a “stretch releasable adhesive,” the Examiner cites Hutter. In direct contrast to the teachings described above, Hutter relates to the use of a double-sided adhesive used to maintain a fixture against a surface while a permanent adhesive between the fixture and the surface cures. Hutter, Abstract. In terms of removability, Hutter teaches “adhesive attachment wherein removal of a support fixture component from a substrate following curing of the adhesive bonding agent is not required.” Hutter at col. 2, ll. 18-21. Thus, as a first matter, Hutter teaches that the double-sided adhesive is to be used in applications where a fixture is permanently attached, in contrast to the removability associated with the dent pulling applications described above.

In terms of the adhesive strength taught by Hutter, the adhesive is only required to support a fixture, such as an electrical box or the like, during cure. Hutter at col. 3, ll. 58-62. In other words, there is no comparable strength requirement to the dent pulling functions of Ventura and the other references. Furthermore, Hutter teaches that the pulling force exerted on the double-sided adhesive is on the order of about 1 pound. Hutter at col. 7, ll. 44-51. Clearly, this type of low force adhesion is no where near the force required in the application of the Ventura reference, or the other cited references, e.g., 200 pounds. Furthermore, Hutter teaches that if additional adhesive strength is needed to maintain a fixture against a surface, a nail can be embedded into a substrate, thereby further damaging the substrate. Hutter at col. 12, ll. 7-17. Clearly, Hutter’s teachings relating to (1) the adhesive strength and (2) lack of use in removable applications of the double-sided adhesive of Hutter teach away from the dent removing strengths required by the other cited references.

Furthermore, even if the cited references did not teach away from their combination, obviousness requires a reasonable expectation of success in the modification or combination of references. MPEP §2143.02. According to the discussion above, and in light of the teachings of Hutter, one having ordinary skill in the art would not have a reasonable expectation of success combining the double-sided adhesive of Hutter with the Ventura reference. In particular, there is no guidance as to the adhesive strength of the double-sided tape, or otherwise necessary guidance as to the possible use of double sided adhesive in dent removal. As such, one having

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ordinary skill in the art would not reasonably expect the double-sided adhesive as disclosed in Hutter to work in the application of Ventura without further guidance.

Finally, Hutter is not analogous art to Ventura. “[A] reference must either be in the field of Applicant’s endeavor, or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 977 F.2d 1443, 1446 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). In terms of the first requirement, Hutter is clearly not in the same field of endeavor as the present invention. While Hutter relates to permanently attaching fixtures to various surfaces, the present invention relates a method of applying force accomplished by securing a device to a surface or object in such a manner that it can also be easily removed from the surface or object without damaging the surface and/or object or leaving adhesive residue thereon.

In terms of the second requirement, whether the Hutter reference is reasonably pertinent to the particular problem with which the inventor was concerned “the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent. *In re Clay*, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992). In particular, “the similarities and differences in structure and function” carry great weight in determining whether a reference is analogous art. *In re Clay*, 23 USPQ2d at 1061. Once again, the present invention relates to applying force to a surface by allowing a device to be attached to a surface to apply the force, and allowing the device to be easily removed from the surface and/or object without damaging the surface and/or object and without leaving adhesive residue thereon. In direct contrast, the structure and function of Hutter relates to a permanent, curable adhesive used in combination with a double-sided tape to permanently mount an attachment component such as a threaded stud on a surface of a substrate. Due to the great difference in the goals of the present invention and of the Hutter reference, it is believed that Hutter is not reasonably pertinent to the particular problem with which the applicant is concerned. Simply put, not all adhesion problems are analogous. See *In re Oetiker*, 24 USPQ2d at 1445-46 (holding that not all hooking problems are analogous).

In view of the above, it is believed that none of the cited references properly teach or suggest the limitations of the independent claims, either alone or in combination. As such, it is

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respectfully requested that the Examiner withdraw the rejection of independent claims 1, 11, and 19 with subsequent allowance and notice to that effect. As claims 2-10 and 12-18 depend, in some form, from independent claims 1 or 11, they are believed to be patentably distinct from the cited references for similar reasons. As such, their allowance is also respectfully requested with notice to that effect.

Newly Presented Claim

Newly presented claim 20 depends from claim 1, and thus for at least the reasons provided above, is allowable. Further, claim 20 recites additionally allowable subject matter for at least the following reasons, and is supported, for example, by FIGS. 1 and 2 and corresponding specification text. The Examiner has identified the engagement member 7 of Ventura as a “body member.” Furthermore, the Examiner has identified the shaft 9 and the knob 10 of Ventura as a “force applying member.” According to these designations, the “body member” cannot be attached to the surface at a location distinct from the selected location as required by the limitations of claim 20. Additionally, the “body member” and “force applying” structures identified by the Examiner as reference number 7, and reference numbers 9 and 10 of Ventura cannot move relative to one another in contrast to the limitations of claim 20. Thus, claim 20 is believed patentably distinct from the cited references. As such, its allowance is respectfully requested for such additional reasons.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-20 are in form for allowance and are not taught or suggested by the cited references.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant’s representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed either David B. Patchett at Telephone No. (651) 736-4713, Facsimile No. (651) 736-3833 or Timothy A. Czaja at

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Respectfully submitted,

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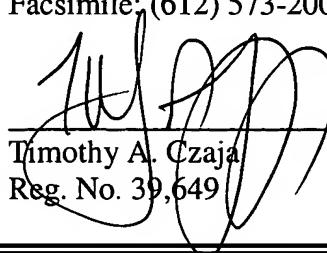
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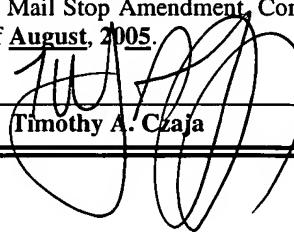
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CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 17 day of August, 2005.



By _____
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